AMENDMENTS TO THE CLAIMS

Claims 1-41

42. (New) A method of identifying an agent that is capable of modulating an activity of RPTPB, the method comprising:
    (a) contacting a test agent with a transgenic mouse comprising a homozygous disruption in the RPTPB gene;
    (b) contacting the agent with a wild-type control mouse;
    (c) comparing a physiological response of the transgenic mouse with that of the control mouse, wherein said physiological response is a change in survival rate, rate of lethality, vascular development or hematopoiesis;
    (d) wherein a difference in the physiological response between the transgenic mouse and the control mouse is an indication that the agent is capable of modulating activity of RPTPB.
43. (New) A method of identifying an agent that is capable of modulating expression of a RPTPB gene, the method comprising:
    (a) contacting a test agent with a transgenic mouse comprising a homozygous disruption in the RPTPB gene;
    (b) contacting the agent with a wild-type control mouse;
    (c) comparing a physiological response of the transgenic mouse with that of the control mouse, wherein said physiological response is a change in survival rate, rate of lethality, vascular development or hematopoiesis;
    (d) wherein a difference in the physiological response between the transgenic mouse and the control mouse is an indication that the agent is capable of modulating expression of a RPTPB gene.
44. (New) A method of identifying an agent that is capable of modulating a phenotype selected from the group consisting of a developmental abnormality, increased incidence of lethality, reduced vascular development or reduced hematopoiesis, the method comprising:
    (a) contacting a test agent with a transgenic mouse comprising a homozygous disruption in the RPTPB gene;
    (b) contacting the agent with a wild-type control mouse;

(c) comparing a physiological response of the transgenic mouse with that of the control mouse, wherein said physiological response is a change in development, vascular development, hematopoiesis or incidence of lethality;

(d) wherein a difference in the physiological response between the transgenic mouse and the control mouse is an indication that the agent is capable of modulating said phenotype.

45. (New) The method of claim 44 wherein the phenotype is a developmental abnormality.

46. (New) The method of claim 44 wherein the phenotype is increased incidence of lethality.

47. (New) The method of claim 46 wherein the increase incidence of lethality occurs during embryonic development.

48. (New) The method of claim 47 wherein the increased incidence of lethality occurs at about embryonic day 9.5 to 10.5.

49. (New) The method of claim 44 wherein the phenotype is reduced vascular development.

50. (New) The method of claim 44 wherein the phenotype is reduced hematopoiesis.